EG&G ROCKY FLATS

INTEROFFICE CORRESPONDENCE

DATE: September 1, 1994

TO: M. C. McKee, Solar Ponds Projects, Bldg 080, X8717

FROM: M. B. Murdock, Ecology and Watershed Management, Bldg. T130B, X3560

SUBJECT: FINDINGS OF ECOLOGICAL SURVEY OF OPERABLE UNIT 4 (OU4) CONDUCTED AUGUST 16, 1994 - MBM - 011 - 94

The walkdown of OU4 conducted with you and ESI on August 16, 1994 identified several areas of potential ecological concern. These were the potential nesting sites for migratory birds, the wetlands associated with seeps on the north hillside, and the riparian area in the north buffer zone. The concerns are outlined below.

- Surveys for nests, or actively nesting migratory birds, depending on the season will be required before buildings and other structures are demolished and removed. The best period for this phase of activity is the fall/winter time frame due to the lack of breeding activity. Ecology and Watershed Management (E&WM) can give guidance on techniques to exclude birds from structures to be demolished. In any case, however, if bird nests are found, application must be made to the U.S. Fish and Wildlife Service for a nest removal permit. If the nests are inactive, approval should not require a significant amount of time. If active nests are present, the U.S. Fish and Wildlife Service may not immediately grant a nest removal permit. E&WM personnel can facilitate such a permit application.

- The wetlands associated with the seeps on the north hillside were mapped by the U.S. Army Corps of Engineers (ACE) by the wetlands delineation project during the summer of 1993. E&WM has just recently received a draft final copy of the resulting map. The previous study was based upon aerial photographs and was not ground-truthed. The current map is now considered the "official" wetland map for Rocky Flats Environmental Technology Site(RFETS). Jeff Krause (X3363) has a complete copy of this map, and has been interfacing with the ACE throughout this mapping/delineation project.

  As discussed, the best option is to protect the wetlands from disturbance if possible. If the wetlands must be disturbed by clean-up operations, they must be replaced, or the damage mitigated elsewhere, to comply with the Clean Water Act which protects wetlands. It may be possible to take advantage of the wetlands banking agreement DOE, RFFO is currently negotiating with the Environmental Protection Agency and the ACE. This is not a certainty, however, so alternative mitigation strategies must be considered.

- The Walnut Creek riparian area, just down-slope of the proposed clean-up activities in the north buffer zone, may be problematic. This area, in addition to being sensitive habitat and largely wetlands, is known habitat for the Preble's Meadow Jumping Mouse (*Zapus hudsonius preblei*). The Preble's Mouse is currently under consideration by the U.S. Fish and Wildlife Service for listing under the Endangered Species Act as a federal endangered species. It is currently a state listed "species of special concern." DOE, RFFO guidance on this species, received during the spring of 1994, is that it should be

afforded all the protection required for a federally listed threatened species. This, in effect directs that all individuals and their habitat must be protected from harm.

This may be the most difficult ecological problem to overcome during the clean-up of OU4. If the species becomes a federally listed species, informal, and possibly formal consultation must be entered into with the U.S. Fish and Wildlife Service before work can proceed. Consultation is required under the Endangered Species Act if a listed species may be affected by an activity. Listing may result in postponement or cancellation of portions of the planned work. It will be necessary to remain current with the status of this species.

- As discussed, different seed mixtures will be appropriate for stabilization of the clay cap over the solar ponds and any work areas in the north buffer zone. A separate mitigation plan will be required for mitigation of damage to wetlands.

cc:
P. A. Lee
J. D. Krause
T. R. Ryon
File

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TRIP REPORT

TO: Distribution **DATE:** August 16, 1994

FROM: Philip Nixon **PROJECT:** Solar Pond IM/IRA

MEMO #: SP307:082294:01

ATTENDANCE:

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Marcia Murdock, EG&G
Phil Nixon
John Giammona
Pete Williams

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SUBJECT: Trip Report

On August 16, 1994 ES and EG&G toured the OU4 Solar Evaporation Pond area to identify sensitive ecological areas and discuss potential issues concerning wildlife and plant species inhabiting the OU4 area. The tour focussed on 3 areas: the Solar Evaporation Ponds (SEPs), the north hillside, and the buffer zone. Marcia Murdock led the tour.

Solar Evaporation Ponds

Marcia indicated that the upland human made drainage swales around the SEPs were not wetland areas and do not need to be considered for wetland remediation. Marcia stated that an assessment of the SEP area would need to be made next spring for cliff swallow nesting sites. If cliff swallow nesting sites are identified, then a nest removal permit will need to be obtained from the Fish and Wildlife Service. Cliff swallows may build nests in the overhangs of Building 788 or around equipment installations. It was noted that the anticipated IM/IRA construction start date of September 1995 is after the nesting season.

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North Hillside

There are at least two small wetland areas towards the bottom of the slope that had not been classified as jurisdictional wetlands during the 1991 "Rocky Flats Plant Wetlands Assessment."

Area A is the largest of the areas and is dominated by broad-leaf cattail, an obligate species. This site is saturated to the surface and water flows into it from a ground water seep. Surface water drainage patterns lead into the area.

Area B is located about 20 feet east of area A, and is smaller. This area had species of *Carex* and *Juncus*, most of which are facultative wetland or obligate species. This area was also saturated to the surface and had a ground water seep. Surface water would also flow into this area.

A third area is potential wetland, area C. It has a *Tamarix* plant on it, a facultative wetland indicator species. Also in this area were *Panicum* species, which are facultative, and Fox-Tail Barley, a facultative wetland species. This area was not saturated to the surface and there were no open ground water seeps.

Plant species composition for these areas should be augmented by studying the photographs taken on-site and checking with Marcia Murdock.

These three areas are all located within a single soil type on the SCS Golden Area Soil Survey. The type is Denver-Kutch-Midway, with inclusions of Englewood, Hill, and Midway. The SCS does not list this type as hydric soil, but a soil scientist at the SCS says that there are specific sites of hydric-type soils in that mapping unit, but those may have to verified in the field. The SCS does not have a list of hydric soils in Jefferson County.

The enclosed map shows the site's potentiometric surface, where the mean ground water table level intercepts with the surface. In these areas, soils are saturated to the surface for a time period usually including April, May, and June. The approximate locations of the wetland areas are shown on the map.

It was discussed that the following course of action would be taken. Obtain the vegetation and sensitive habitat map and some aerial photographs from EG&G. ES will use these in conjunction with the photographs taken onsite and professional judgement to determine the extent and location of these wetland areas. Marcia Murdock would be willing to delineate the areas by assessing the vegetation types. ES will plan to protect the wetlands during IM/IRA construction activities, mainly by putting up temporary fencing to insure that personnel and vehicles will not enter the wetlands, and construction of silt fences to protect the wetlands from

sedimentation. Restoration of the wetlands will be attempted after all closure activities associated with the SEPs are completed. (Phase II) If the restoration attempts are not successful, then wetland mitigation banking options will be considered. One options is a mitigation banking project the DOE and USACE are trying to set up in Bear Creek Lake Park. Mitigation banking ratios would probably be around 3:1 or 4:1.

The IM/IRA-EA Decision Document will be modified to identify the wetland areas and specify the mitigation measures noted above.

Buffer Zone

Marcia Murdock had no major wetland concerns in the OU4 buffer zone area. The buffer zone is a mesic mixed grassland habitat which will need a different revegetation seed mix from the seed mix proposed for the engineered cover. It was noted that the buffer zone may be habitat for the Preble's Meadow jumping mouse which may be placed on the state list of rare and endangered species. This issue needs to be tracked because the remediation plans may need to be modified if the species is formally included on the state rare and endangered species list.

Action Items

- EG&G vegetation and sensitive habitat map on CADD from Michelle McKee.
- ES to investigate any existing aerial photographs from EG&G.
- Receive photographs taken onsite when they are available (anticipated 2-3 weeks).

Philip A. Nixon

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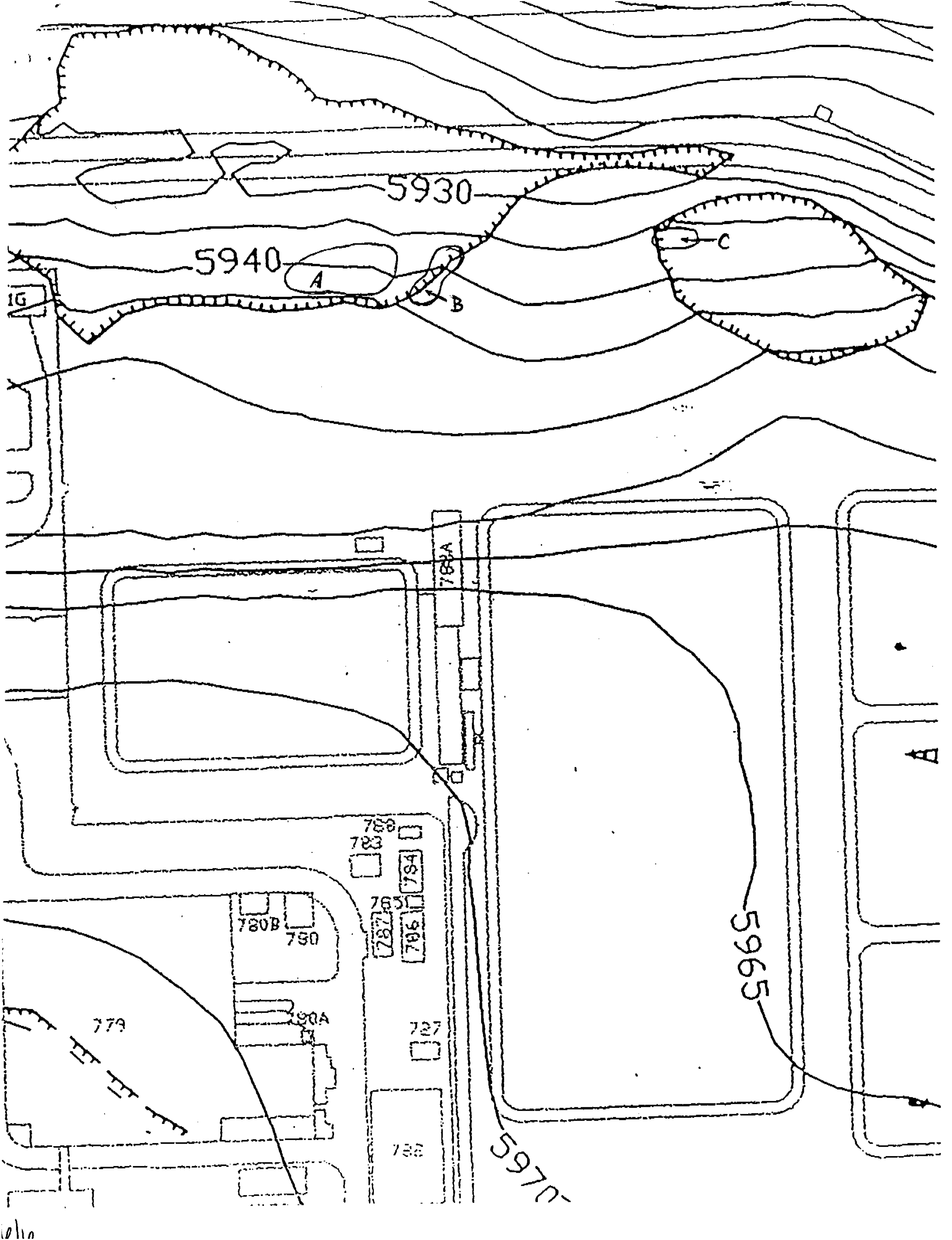
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